AMENDMENTS TO THE CLAIMS:

Kindly cancel claims 24, 25, 33, 35 and 36, without prejudice.

Please amend claims 22 and 23, as follows:

Claims 1-21 (canceled)

Claim 22 (currently amended): A process for producing a hydrogen storage metal alloy having a main phase with body-centered cubic structure wherein the body-centered cubic structure phase enables adsorption and desorption of hydrogen, comprising the steps of:

(1) providing a starting mixture which has a composition of the following general composition formula:

(i) $Ti(100-a-0.4b)Cr(a-0.6b)Mb$

wherein M is vanadium (V), provided that $20 \leqq a\ (at\%) \leqq 80$, and $0 < b\ (at\%) < 10$; or

(ii) $Ti(100-a-0.4b)Cr(a-0.6b)Mb$

wherein M is at least a member selected from molybdenum (Mo) and tungsten (W), wherein $20 \leqq a\ (at\%) \leqq 80$, $0 < b\ (at\%) < 5$, and when M is W said metal alloy has a hydrogen storage capacity of at least 2.6 mass % or more; or

(iii) $Ti(100-a-0.4b)Cr(a-0.6b)V(b-c)Mc$

wherein M is at least a member selected from molybdenum (Mo) and tungsten (W), wherein

[[$20 \leqq a\ (at\%) \leqq 80$, $0 \leqq b\ (at\%) \leqq 10$, and $0 \leqq c\ (at\%) < 5$,]]

$20 \leqq a\ (at\%) \leqq 80$, $0 < b\ (at\%) \leqq 10$, and $0 < c\ (at\%) < 5$ ~~-excluding the case where (1) b = 0 and c = 0 and (2) b = 10 and c = 0~~; or

(iv) $Ti(100-a)\ Cra$

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wherein $20 \leqq a\ (at\%) \leqq 80$;

(2) repeatedly melting and solidifying the starting mixture to form a heated homogeneous alloy;

(3) maintaining the heated homogeneous alloy at a temperature of at least 1400°C within a range just below the melting point of the alloy for a predetermined time of from 1 minute to 2 hours; and

(4) rapidly cooling the alloy from step (3) in iced water.

Claim 23 (currently amended): The process of Claim 22 wherein said melting and ~~solidification operations~~ solidifying are carried out repeatedly for predetermined times in step (2).

Claims 24-25 (canceled)

Claim 26 (previously presented): The process of Claim 22 wherein the starting mixture contains an additional element X admixed at its atom % concentration, d (at%), ranging within $0 \leqq d\ (at\%) \leqq 20$ and includes at least one or more other elements selected from the group consisting of Al, Ge, Ga, Si, Au and Pt.

Claim 27 (previously presented): The process of Claim 22 wherein the starting mixture contains an additional element T admixed at its atom % concentration, e (at%), ranging within $0 \leqq e\ (at\%) \leqq 10$ and includes at least one or more other elements selected from the group consisting of Nb, Ta, Mn, Fe, Al, B, C, Co, Cu, Ga, Ge, a lanthanoid metal, N, Ni, P, and Si.

Claim 28 (previously presented): The process of Claim 26 wherein the starting mixture contains an additional element T admixed at its atom % concentration, e (at%), ranging within

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$0 \leqq e$ (at%) $\leqq 10$ and includes at least one or more other elements selected from the group consisting of Nb, Ta, Mn, Fe, Al, B, C, Co, Cu, Ga, Ge, a lanthanoid metal, N, Ni, P, and Si.

Claim 29 (previously presented): The process of Claim 22 wherein the starting mixture has a composition of the following general composition formula:

$$Ti(100-a-0.4b)Cr(a-0.6b)Mb$$

wherein M is vanadium (V), provided that $20 \leqq a$ (at%) $\leqq 80$, and $0 < b$ (at%) < 10.

Claim 30 (previously presented): The process of Claim 29 wherein a level of the constituent element V contained in the mixture is within a range of 6 ± 2 at %.

Claim 31 (previously presented): The process of Claim 22 wherein the starting mixture has a composition of the following general composition formula:

$$Ti(100-a-0.4b)Cr(a-0.6b)Mb$$

wherein M is at least a member selected from molybdenum (Mo) and tungsten (W), wherein $20 \leqq a$ (at%) $\leqq 80$, $0 < b$ (at%) < 5, and when M is W said resulting metal alloy has the hydrogen storage capacity of at least 2.6 mass % or more.

Claim 32 (previously presented): The process of Claim 31 wherein a level each of the constituent element Mo and/or W contained in the starting mixture is within a range of 3 ± 1.5 at %.

Claim 33 (canceled)

Claim 34 (original): The process of Claim 24 wherein in step (3) the alloy is kept at the temperature of at least 1400°C or higher and just below the melting point of the alloy.

Claims 35-36 (canceled)

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Claim 37 (previously presented): The process of Claim 22 wherein the predetermined time range in step (3) is from 1 minute to 1.9 hours.

Claim 38 (previously presented): The process of Claim 22 wherein the predetermined time range in step (3) is from 1 minute to 100 minutes.

Claim 39 (previously presented): The process of Claim 22 wherein the predetermined time range in step (3) is from 1 minute to 1 hour.

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